

considered were: clinical management of patient with HCV chronic infection, access modalities, outpatient visit, planned and unplanned visits, hospital admission, role of the general practitioner (GP). **RESULTS:** The budget impact analysis shows that, considering both naïve and previously treated patients, the treatment with boceprevir has an impact on the National Health Service of almost €66 million for the first year. Compared to treatment with DT, the cost-utility analysis shows for the boceprevir-based treatment strategy an ICER of €8,622.00. The management of IT for its intrinsic complexity requires monthly outpatients visits, at least at the beginning of treatment, for monitoring the compliance to treatment, efficacy and side effects. A critical organizational point is potentially the request for boceprevir for each single patient by the medical prescriber, who needs to fill in detailed form from the Italian Agency of Drug (AIFA). **CONCLUSIONS:** The impact of the introduction of boceprevir on the budget is high, even if the ICER is favourable. Patients' management is particularly complex and there is the need for an alliance between the patients, their relatives, GPs and specialized centers.

PGI13

ENTERAL DIETS (ED): A COST-COMPARISON ANALYSIS FOR IN-HOSPITAL PREPARATIONS BASED ON REAL WORLD OBSERVATION

Clark OAC¹, Paladini L¹, Nishikawa AM¹, Borges L¹, Arraiz A²¹Evidencias, Campinas, Brazil, ²Danone Medical Nutrition, São Paulo, Brazil

OBJECTIVES: ED can be administered based on three different systems – powder based (Po), open, liquid (Op), and a completely closed (Cl). There are differences in the preparation, installation and delivery and in the diarrhea rates among them. Our aim was to measure the total costs for each system, considering the resources needed to prepare, delivery administer and discard of each system (hidden costs). **METHODS:** We measured the human (nurse, nutritionist, auxiliary personnel) resources involved in ED preparations in three hospitals of Brazil. Then, we calculated the costs of the process, based on the minimum official wage for each professional category. After, we added the costs of the diets and materials needed to the infusion. We used as base case a daily need of 1 000Kcal / patient. Additional analyses were performed to include the side effects of ED system. **RESULTS:** There were differences among the human resources needed for each system. Hidden costs were 63% of the total for Op, 58% for Po and 53% for Cl. Particularly, the nurse time varied from 18 minutes for Po and Op and 5 min for Cl for each infusion. Considering that and average patient would require daily 4 infusions of Po or Op, that represents a total of 72min of nurse time to these systems, against 5 min to Cl. Total daily costs, were Op US\$ 62.05; Po US\$ 50.75 and Cl US\$48.03. If we consider the costs of side effects, such as diarrhea, the costs are: Op US\$ 73.42; Po US\$ 62.15 and Cl 56.35. This increase in the difference among the costs is due to a lower incidence of diarrhea in Cl systems. **CONCLUSIONS:** There are many hidden costs on the ED systems. If we consider them Cl systems are less costly than Op and Po.

PGI14

COST ANALYSIS OF PROTON PUMP INHIBITORS IN THE TREATMENT OF ULCER DUODENUM IN UKRAINE

Iakovlieva L., Gerasymova O., Mishchenko O., Kuznetsov I., Kyrychenko O., Tkachova O

National University of Pharmacy, Kharkiv, Ukraine

OBJECTIVES: Proton pump inhibitors (PPIs) are essential components schemes of antihelicobacter therapy (AT) of peptic ulcer disease. The aim of research - to determine the costs of the use of PPIs in the traditional triple schemes AT (first and second line) of the working age patients with a duodenal ulcer in Ukraine. The objects of research - preparations of omeprazole, pantoprazole, rabeprazole, lansoprazole, ezomeprazole, which are present in Ukraine. **METHODS:** Cost analysis on the use of PPIs in the schemes of AT was performed per one patient for 14 days with the daily doses of drugs: omeprazole - 40 mg, pantoprazole - 80 mg, rabeprazole - 40 mg, lansoprazole - 60 mg, ezomeprazole - 40 mg (according to the recommendations of the "Maastricht IV", 2010). For determining the costs only the costs of the PPIs were taken into account. The prices of drugs were taken from the information system "Drugs" of Company "Morian" (December, 2012). The currency ratio of UAH to dollar (USA) on 10.12.12 was 7.99:1. To determine the range of costs for use of PPIs determined their trade names with the minimum and maximum costs for the AT. **RESULTS:** The range of costs for use of PPIs in the traditional triple schemes AT in Ukraine is wide enough, respectively: omeprazole - 1.15 - 19.15 \$, pantoprazole - 5.11 - 49.28 \$, lansoprazole - 5.14 - 10.66 \$, rabeprazole - 4.27 - 63.40\$, ezomeprazole 1.81 - 36.42\$. **CONCLUSIONS:** Costs only for the use of PPIs in the schemes of AT of duodenal ulcer can be quite high in Ukraine. In this regard, the choice of PPIs for inclusion in the schemes of AT is advisable to use the results of pharmacoeconomic studies that will optimize the costs of the payer.

PGI15

ECONOMIC ANALYSIS OF USE OF HARMONIC DEVICES IN INPATIENT LAPAROSCOPIC CHOLECYSTECTOMY IN THE UNITED STATES

Cheng H¹, Hinoul P¹, Clymer J¹, Vaughn B²¹Johnson & Johnson (Ethicon Endo Surgery, Inc), Cincinnati, OH, USA, ²Johnson and Johnson (Ethicon, Inc), Somerville, NJ, USA

OBJECTIVES: Harmonic® ultrasonic energy devices have been developed as a safer and more efficient alternative to traditional electrosurgery (monopolar and bipolar) in laparoscopic cholecystectomy. However, the economic impact on hospital cost has not yet been assessed in the United States. The aim of the study is to evaluate the total cost of laparoscopic cholecystectomy performed with an ultrasonic device versus electrosurgery from a hospital perspective. **METHODS:** A literature review was performed to identify publications via EMBASE and MEDLINE database. Nine randomized controlled studies were included in this analysis based on inclusion criteria. The clinical results were weighted based on No. of patients to calculate averages for both energy devices. The total departmental cost data for electrosurgery group were obtained from a large US payor (PREMIER database) to apply the clinical findings to calculate the cost for the Harmonic group. The total cost in laparoscopic cholecystectomy with two energy devices was compared to determine which modality is more cost effective. **RESULTS:** The total case cost using an ultrasonic device in an inpatient laparoscopic cholecystectomy is \$7701 v.s. electrosurgery is \$8637. The use of an ultrasonic device provides a hospital savings of \$936 per patient

treated. The savings mainly resulted from shorter operating time (13 Minutes) and decreased hospital stay (0.7 days). **CONCLUSIONS:** Although the instrument cost is higher for the ultrasonic device, the total procedural cost is lower compared to electrosurgery. Utilization of the Harmonic® ultrasonic device in laparoscopic cholecystectomy can lead to substantial cost savings for US hospitals.

PGI16

MORTALITY AND MEDICAL COSTS ASSOCIATED WITH LIVER-RELATED DISEASES AMONG PATIENTS WITH HEPATITIS C VIRUS(HCV) INFECTION IN TAIWAN

Tang CH, Huang KC, Huang SY, Wu YT, Lin KD
Taipei Medical University, Taipei, Taiwan

OBJECTIVES: To examine the mortality and medical costs during the first and the 2nd year following the onset of the five liver-related diseases, i.e. HCV infection, compensated cirrhosis (CC), decompensated cirrhosis (DCC), hepatocellular carcinoma (HCC), or liver transplantation. **METHODS:** Patients with HCV infection and patients who transitioned to the health state of liver-related disease were identified from the National Health Insurance Research Database (NHIRD) during 2008-2010 if any outpatient/inpatient service with primary diagnosis code of 070.54 for HCV infection or 571.5 for CC occurred, or if patients registered in the Registry of Catastrophic Illness with diagnosis code of 571.5 for DCC, 155 for HCC or V42.7 for post liver transplantation. Dual infection patients with diagnosis code of 070.30 for HBV or 042-044 for HIV were excluded. The date that the outpatient visit/admission with the diagnosis code associated with each health state of liver-related disease firstly occurred was defined as the index date. Regression-adjusted medical costs associated with each health state of liver-related disease within 1st year and 2nd year after the index date were estimated by generalized linear regression model. Excess risks of death for patients with DCC, HCC, or liver transplantation were assessed by Cox proportional hazard model. **RESULTS:** First year total medical costs associated with HCV infection, CC, DCC, HCC and liver transplantation were NT\$25,345, NT\$49,793, NT\$187,428, NT\$197,835, NT\$487,816, respectively. The 2nd year total medical costs associated with DCC, HCC and liver transplant were NT\$194,016, NT\$176,167 and NT\$270,009, respectively. Patients in the health states of DCC, HCC and liver transplantation posed higher risk of death with hazard ratio of 14.5 when compared with their matched control counterparts. **CONCLUSIONS:** Liver-related diseases followed by HCV infection impose substantial economic burdens to the National Health Insurance in Taiwan. Effective treatment for HCV infection may imply potential savings to the society.

PGI17

RESOURCE UTILIZATION AND COSTS FOR PATIENTS WITH INFLAMMATORY BOWEL DISEASES IN ITALY: A POPULATION-BASED ASSESSMENT

Madotto F¹, Fornari C¹, Fiorino G², Ardizzone S², Bortoli A², Caprioli F², Cestari R², Conti S¹, Cortelezzi C², Mantovani LG³, Massari A², Meucci G², Ravelli P², Vecchi M², Danese S², Cesana G¹¹University of Milano - Bicocca, Monza, Italy, ²EPICO MICI LOMBARDIA Project, Milano, Italy,³Federico II University of Naples, Naples, Italy

OBJECTIVES: To describe health care resource utilization in treating patients affected by inflammatory bowel diseases (IBD) and to assess the related direct costs to the Italian health care system (HS) in its most populated region. **METHODS:** A retrospective observational study was conducted using data from DENALI, a data warehouse that organizes and integrates the health care administrative databases of the national HS in Lombardy (northern Italy) with a probabilistic approach. The Italian HS provides universal coverage and records the accesses to health care services at regional level. We enrolled adult patients with Ulcerative Colitis (UC) or Crohn's Disease (CD) diagnosed during the period 2003-2009. Patients were classified in two cohorts in relation to the type of IBD and were followed until December 31st, 2009 to assess the mean annual consumption of resources (hospitalizations, pharmaceutical prescriptions, outpatient services) and the related costs incurred by HS. **RESULTS:** We identified 5,523 patients with UC and 3,321 with CD and the mean annual cost per-capita was €2,386 (95%CI: 2,241-2,516) and €2,699 (95%CI: 2,538-2,914) respectively. The breakdown of expense was similar in the cohorts: pharmacological treatments accounted for 37%, hospitalizations for 47% and outpatient services for 16%. Use of mesalazine was high in patients with UC and CD: 94% and 88% of subjects was respectively prescribed at least one package during follow-up. High adherence (≥70%) to oral mesalazine was observed in 39% of patients with UC and in 24% of CD cohort. Less than 6% of patients used biologics, which were used only from 2008. **CONCLUSIONS:** This study confirms that patients with IBD represent a considerable economic burden for the Italian HS: prescribed drugs, especially mesalazine, account for a substantial proportion of health care costs. The results underline the importance of administrative databases and the need for further research, since the recent widespread use of biologics for treating IBD.

PGI18

UTILISATION AND COSTS OF INPATIENT AND OUTPATIENT SERVICES AMONG PATIENTS WITH IRRITABLE BOWEL SYNDROME- A STUDY USING THE CLINICAL PRACTICE RESEARCH DATALINK (CPRD)

Murray-Thomas T¹, Dedman D¹, Canavan C², West J², Card T²¹Medicines and Healthcare Products Regulatory Agency, London, UK, ²University of Nottingham, Nottingham, UK

OBJECTIVES: Irritable bowel syndrome (IBS) is a common functional gastrointestinal disorder. We assessed utilisation of secondary care services and associated costs among patients with IBS. **METHODS:** IBS was identified by medical diagnosis and/or prescribing in the UK primary care setting. Patients had ≥12 months of medical history prior to diagnosis. Absolute resource use and expenditure were assessed post IBS and over four years (01/04/2008-31/03/2012) using Hospital Episode Statistic data. Inpatient admission, outpatient attendance and length of stay for any cause including IBS related conditions were assessed. Inpatient costs for the period were estimated using allocated Health Resource Group coded data. Outpatient costs